

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



**MISSOURI STATE OPERATING PERMIT**

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92<sup>nd</sup> Congress) as amended,

Permit No. MO-0124044

Owner: Chemical Lime Company  
Address: P.O. Box 466, Ste. Genevieve, MO 63070

Continuing Authority: Same as above  
Address: Same as above

Facility Name: Chemical Lime Company  
Facility Address: 20947 White Sands Road, Ste. Genevieve, MO 63070

Legal Description: SW ¼, NW ¼, Sec. 7, T38N, R9E, Ste. Genevieve County  
Latitude/Longitude: See page 2

Receiving Stream: Mississippi River (P)  
First Classified Stream and ID: Mississippi River (P)(01707)  
USGS Basin & Sub-watershed No.: Outfalls #001 & #002 (07140101-250001)  
Outfall #003 (07140101-230004)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

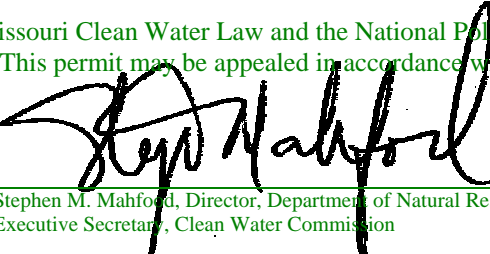
**FACILITY DESCRIPTION**

See page 2

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

March 22, 2002  
Effective Date

March 21, 2007  
Expiration Date  
MO 780-0041 (10-93)

  
Stephen M. Mahford, Director, Department of Natural Resources  
Executive Secretary, Clean Water Commission

Interim Director of Staff, Clean Water Commission

FACILITY DESCRIPTION (continued)

Outfall #001 - Industry - SIC #3274  
Stormwater runoff/groundwater/pumped discharge.  
Design flow is 3.5 MGD.  
Actual flow is rainfall dependent.  
Latitude/Longitude: +3800552/-09005282

Outfall #002 - Industry - SIC #3274  
Stormwater.  
Design flow is 0.3 MGD.  
Actual flow is rainfall dependent.  
Latitude/Longitude: +3800584/-09005318

Outfall #003 - Industry - SIC #3274  
Oil/water separator.  
Design flow is 120 gallons per day.  
Actual flow is 120 gallons per day.  
Latitude/Longitude: +3800491/-09005192

					PAGE NUMBER 3 of 5	
<b>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>					PERMIT NUMBER MO-0124044	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u>						
Flow	MGD	*		*	once/week	24 hr. estimate
Total Suspended Solids	mg/L	90		80	once/week	grab
pH - Units	SU	**		**	once/week	grab
Nitrate as N	mg/L	*		*	once/week	grab
Oil & Grease	mg/L	15		10	once/month	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>May 28, 2002</u> .						
<u>Outfall #002 (Note 1)</u>						
Flow	MGD	*		*	once/quarter***	24 hr. estimate
Total Suspended Solids	mg/L	90		80	once/quarter***	grab
pH - Units	SU	**		**	once/quarter***	grab
Nitrate as N	mg/L	*		*	once/quarter***	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>May 28, 2002</u> .						
<u>Outfall #003 (Note 2)</u>						
Flow	MGD	*		*	once/year in June	24 hr. estimate
Total Suspended Solids	mg/L	*		*	once/year in June	grab
Oil & Grease	mg/L	15		10	once/year in June	grab
pH Units	SU	**		**	once/year in June	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2002</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
<b>B. STANDARD CONDITIONS</b>						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- \* Monitoring requirement only.
- \*\* pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.
- \*\*\* Sample once per quarter in the months of March, June, September, and December.

Note 1 - Monitoring frequency shall consist of samples taken during, or immediately following a 24 hour rainfall event of one inch or greater, but not to exceed twice per week.

Note 2 - The oil water separator must be immediately disconnected from the subsurface disposal system and redirected to discharge to the surface where it can be monitored as outfall #003.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
  - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
    - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
    - (2) controls any pollutant not limited in the permit.
  - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
  - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.
3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.
4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
  - (1) One hundred micrograms per liter (100 µg/L);
  - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
  - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
  - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

5. Report as no-discharge when a discharge does not occur during the report period.

C. SPECIAL CONDITIONS (continued)

6. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
- (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
  - (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
  - (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
  - (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
  - (e) There shall be no significant human health hazard from incidental contact with the water;
  - (f) There shall be no acute toxicity to livestock or wildlife watering;
  - (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
  - (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

Date of Public Notice: February 1, 2002

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT  
FACT SHEET

NPDES PERMIT NUMBER: MO-0124044

FACILITY NAME: Chemical Lime Company

OWNER NAME: Chemical Lime Company

LOCATION:

OUTFALL #001: SW ¼, NW ¼, Sec. 7, T38N, R9E, Ste. Genevieve County

OUTFALL #002: SW ¼, NW ¼, Sec. 7, T38N, R9E, Ste. Genevieve County

OUTFALL #003: SW ¼, NW ¼, Sec. 7, T38N, R9E, Ste. Genevieve County

RECEIVING STREAM, BASIN, AND RIVER REACH:

OUTFALLS #001-003 have the following receiving stream, basin and river reach: Mississippi River (Mississippi River and Central Tributaries Basin) (#07140101-01-00).

## **FACILITY DESCRIPTION AND RATIONALE**

The Chemical Lime Company has applied for issuance of an NPDES permit for the Chemical Lime Company. The Chemical Lime Company currently purchases crushed lime stone, roasts the lime stone changing its physical and chemical characteristics to make chemical lime (calcium oxide) at this site. The standard industrial classification (SIC) code for these operations is #3274. The processed lime products are transported by railcar, barges, and trucks to be sold to various consumers throughout the country. Products produced are used in steel mills, water treatment plants, pharmaceuticals, soil stabilization, etc.

The permit application requested authorization for two discharges described as follows:

Outfall #001: A discharge for dewatering an extensive limestone quarry subject to stormwater runoff. Waste products are being backfilled into the quarry. Stormwater potentially contacts these waste products that raise the pH of the water and the suspended solids level. Flow consists of water for dewatering at an average rate of 0.5 MGD with a maximum rate of 3.5 MGD. Settling is provided.

Outfall #002: A discharge from a manufacturing/railway loading dock area where no treatment is provided. The stormwater design discharge rate based on the ten year, twenty-four hour rainfall event is 0.3 MGD and actual flows are dependent on the amount of rainfall. Stormwater from this discharge potentially contacts product and byproducts that raise the peak pH of the water and suspended solids level.

Outfall #003: A discharge from an oil/water separator. Design flow is 120 gallons per day.

The permittee will be required to disconnect the oil/water separator from the domestic leach field and direct its discharge above ground. A third outfall has been added for the oil/water separator as follows:

## RATIONAL FOR EFFLUENT LIMITATIONS

In order to protect the water quality of the receiving streams and the waters they flow into, effluent limitations and monitoring requirements are established in accordance with federal and state laws. Chemical Lime Company discharges to the Mississippi River, a classified stream.

Limits were established by using several sources. Best available technology and best practical technology limits from EPA Effluent Guidelines for crushed stone (40 CFR 436), guidelines for calcium oxide production, (40 CFR 415), the water quality standards (40 CSR 20-7.031), and best professional judgement of the permit writer. The most restrictive limits from the sources above was used to determine final limits.

Section 122.44(d)(1) of Title 40 of the Code of Federal Regulations requires EPA and delegated states to evaluate each NPDES permit for the potential to exceed a state numerical or narrative water quality standards, including those for toxicities, and to establish effluent limits for those facilities with the "reasonable potential" to exceed those standards. These regulations require chemical specific limits, based on state numerical water quality standards or other criteria developed by EPA, and whole effluent toxicity effluent limits.

For Outfall #001 at the Chemical Lime Company

pH, standard units, daily max 6.0 to 9.0, monthly average 6.0 to 9.0.

The Clean Water Act states that "...it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited." In addressing this, the EPA outlined the national policy objectives for development of post-BAT NPDES permit limitations (third round) in March 9, 1984, federal register. This policy states that: "to control pollutants beyond best available technology economically achievable for (BAT), secondary treatment, and other technology based requirements in order to meet state water quality standards, the EPA will use integrated strategy consisting of both biological and chemical methods to address toxic and nonconventional pollutants from industrial and municipal sources." Where state standards contain numerical criteria for toxic pollutants, NPDES permits will contain limits necessary to assure compliance with these standards. In addition to enforcing specific numerical criteria, EPA and the State will use biological techniques and available data on chemical effects to assess toxicity impacts and human health hazards based on the general standards of "no toxic materials in toxic amounts."

Where violation of waste quality standards are identified or projected, EPA and the State will develop water quality based effluent limits for inclusion in any issued permit. Where there is a significant likelihood of toxic effects to biota in the receiving stream, EPA and the State may impose permit limits on effluent toxicity and may require NPDES permittee to conduct a toxicity reduction evaluation (TRE). Where toxic effects are present but there is a significant likelihood that compliance with technology based requirements will sufficiently mitigate the effects, EPA and the State may require chemical and toxicity testing after installation of treatment, and may reopen the permit to incorporate additional limitations if needed to meet water quality standards.

The special conditions are attached to the draft permit to explain in detail the expectations placed upon the permittee for the operation, monitoring and reporting of the wastewater handling activities at the permitted facility. The standard conditions attached to the draft permit are applied to all NPDES permittee. They reflect requirements of the federal (40 CFR part 1.2) and state (10 CSR 20-chapter 6) regulations with respect to permittee duties responsibilities and liabilities.

This permit will be issued for a period of five years.